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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/629,910	LILLQVIST ET AL.
	Examiner	Art Unit	
	CHARLES D. ADAMS	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,15 and 21-27* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,15 and 21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   In response to communications filed on 17 June 2009, claims 1, 9, 11, and 15

are amended. Claims 1-11, 15, and 21-27 are pending in the application.

2.   It is noted that, in the arguments filed on 17 June 2009, the Applicant has

explicitly stated that the "apparatus" of claim 11 is hardware, and that the "interface" and

"converter" elements of that claim are also both "hardware." Specifically, Applicant

stated that "interpretation of the terms must be understood as referring to the machine

components of the apparatus" (page 11). With this positive recitation of the physical

nature of the claim limitations, the Examiner withdraws the 35 U.S.C. 101 rejection in

regards to the claim.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-11, 15, and 21-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bagley et al. (US Patent 6,963,928) in view of Khello et al. (US Pre-

Grant Publication 2003/0007482).

As to claim 1, <u>Bagley et al</u>. teaches a method, comprising:

receiving data to be supplied to database operations in a domain name server (see 7:48-55 and 8:20-36), the data including at least one Internet domain name comprising a plurality of successive labels (see 8:20-36)

said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see <u>Bagley et al</u>. 8:20-36);

conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name are combined for form a single label (see <u>Bagley et al</u>. 8:37-59), wherein the conditionally converting comprises converting the Internet domain name when the Internet domain name fulfills a predetermined condition (see <u>Bagley et al</u>. 8:29-59);

supplying the data to the database operations, the supplied data including at least one Internet domain name in the second format (see <u>Bagley et al</u>. 9:3-40).

<u>Bagley et al</u>. does not explicitly teach wherein the internet domain name labels are separated by dots,

<u>Khello et al</u>. teaches teach wherein the internet domain name labels are separated by dots (see paragraph [0058]. <u>Khello et al</u>. teaches to format a domain name in e164.arpa format into a telephone number by removing the dots and reversing the order of the digits. <u>Bagley et al</u>. teaches that to remove "all other characters not included in the translation table such as hyphens and underlines". As a period is not in

the translation table, it is obvious that, with the teachings of <u>Bagley et al.</u>, that character

would be removed)

　　　　Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified <u>Bagley et al.</u> by the teachings in <u>Khello et</u>

<u>al.</u>, because <u>Khello et al.</u> provides <u>Bagley et al.</u> the benefit of an efficient way of

resolving telephone numbers and other entity/device identifiers into Internet addresses

as well as accommodating portability of those telephone numbers and other

entity/device identifiers without having to substantially modify or rework the domain

naming system infrastructure (see Abstrast). In addition to this, as stated above, <u>Bagley</u>

<u>et al.</u> states that "all other characters not included in the translation table, such as

hyphens or underlines, are ignored", and to remove those character. As periods are not

the in the translation table listed in 8:37-55, it would further have been obvious to one of

ordinary skill in the art at the time the invention was made to have removed periods

from a string.

　　　　As to claims 2 and 21, <u>Bagley et al.</u> as modified teaches examining whether an

Internet domain name fulfills the predetermined condition in the first format (see 8:37-

59).

　　　　As to claims 3 and 22, <u>Bagley et al.</u> as modified teaches wherein the examining

step includes examining whether said Internet domain name includes at least a

predetermined number of labels beyond a given origin (see <u>Bagley et al.</u> 8:29-36, 8:60-

9:2), said labels having a predetermined maximum length (see <u>Khello et al</u>. paragraph [0058] and <u>Bagley et al</u>. 6:47-67).

As to claims 4 and 23, <u>Bagley et al</u>. as modified teaches wherein the predetermined condition upon which the converting is conditional is whether the Internet domain name includes at least the predetermined number of labels beyond the given origin, such that the converting is performed for said Internet domain name when the examining indicates that the Internet domain name includes at least the predetermined number of labels beyond the given origin (see <u>Bagley et al</u>. 8:29-36, 8:60-9:2), said labels having the predetermined maximum length, and the converting is not performed when the examining indicates that the Internet domain name does not include at least the predetermined number of labels (see <u>Bagley et al</u>. 8:29-36, 8:60-9:2).

As to claims 5 and 24, <u>Bagley et al</u>. as modified teaches wherein the predetermined number of labels is three (see <u>Bagley et al</u>. 8:60-9:2 and 13:5-12).

As to claims 6 and 25, <u>Bagley et al</u>. as modified teaches wherein the predetermined maximum length is one byte (see <u>Khello et al</u>. paragraph [0058]).

As to claims 7 and 26, <u>Bagley et al</u>. as modified teaches wherein the predetermined maximum length is one byte (see <u>Khello et al</u>. paragraph [0058]).

As to claims 8 and 27, <u>Bagley et al</u>. as modified teaches:

receiving data including another Internet domain name in the second format (see <u>Khello et al</u>. paragraph [0058]); and

converting the another Internet domain name received in the second format back to the first format (see <u>Khello et al</u>. paragraph [0058]).

As to claim 9, <u>Bagley et al</u>. teaches:

receiving means for receiving data to be supplied to database operations in a domain name server (see 7:48-55 and 8:20-36), the data including at least one Internet domain name comprising a plurality of successive labels

said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see 8:20-36);

converting means for conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name are combined to form a single label (see <u>Bagley et al</u>. 8:29-59), wherein the second means is configured to convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see <u>Bagley et al</u>. 8:29-59); and supplying means for supplying the data to database operations, the supplied data including at least one Internet domain name in the second format (see <u>Bagley et al</u>. 9:3-40).

Bagley et al. does not explicitly teach at least one Internet domain name comprising a plurality of successive labels separated by dots,

Khello et al. teaches at least one Internet domain name comprising a plurality of successive labels separated by dots, (see paragraph [0058])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bagley et al. by the teachings in Khello et al., because Khello et al. provides Bagley et al. the benefit of an efficient way of resolving telephone numbers and other entity/device identifiers into Internet addresses as well as accommodating portability of those telephone numbers and other entity/device identifiers without having to substantially modify or rework the domain naming system infrastructure (see Abstrast). In addition to this, as stated above, Bagley et al. states that "all other characters not included in the translation table, such as hyphens or underlines, are ignored", and to remove those character. As periods are not the in the translation table listed in 8:37-55, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have removed periods from a string.

As to claim 10, Bagley et al. teaches:

examining means for examining whether an Internet domain name fulfills the predetermined condition, the second means being configured to convert the Internet domain name into the second format when the Internet domain name fulfills the predetermined condition (see Bagley et al. 8:37-59).

As to claim 11, <u>Bagley et al</u>. teaches:

A first interface configured to receive data to be supplied to database operations in a domain name server (see 7:48-55 and 8:20-36), the data including at least one Internet domain name comprising a plurality of successive labels (see 8:20-36)

said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see <u>Bagley et al</u>. 8:20-36);

a converter configured to conditionally convert at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name form a single label (see <u>Bagley et al</u>. 8:37-59), wherein the modification module is configured to convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see <u>Bagley et al</u>. 8:29-59); and

A second interface configured to supply the data to database operations, the supplied data including at least one Internet domain name in the second format (see 9:3-40).

<u>Bagley et al</u>. does not explicitly teach at least one Internet domain name comprising a plurality of successive labels separated by dots,

<u>Khello et al</u>. teaches at least one Internet domain name comprising a plurality of successive labels separated by dots (see paragraph [0058]);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified <u>Bagley et al</u>. by the teachings in <u>Khello et al</u>., because <u>Khello et al</u>. provides <u>Bagley et al</u>. the benefit of an efficient way of resolving telephone numbers and other entity/device identifiers into Internet addresses as well as accommodating portability of those telephone numbers and other entity/device identifiers without having to substantially modify or rework the domain naming system infrastructure (see Abstrast). In addition to this, as stated above, <u>Bagley et al</u>. states that "all other characters not included in the translation table, such as hyphens or underlines, are ignored", and to remove those character. As periods are not the in the translation table listed in 8:37-55, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have removed periods from a string.

As to claim 15, <u>Bagley et al</u>. teaches:

First interface means for receiving data to be supplied to database operations in a domain name server (see 7:48-55), the data including at least one Internet domain name comprising a plurality of successive labels (see 8:20-36)

said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see <u>Bagley et al</u>. 8:20-36);

Modification means for conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least

two successive labels of the at least one of said at least one Internet domain name form

a single label, wherein the modification means is configured to conditionally convert the

Internet domain name when the Internet domain name fulfills a predetermined condition

(see Bagley et al. 8:29-59); and

Second interface means for supplying the data to database operations, the

supplied data including at least one Internet domain name in the second format (see

Bagley et al. 9:3-40)

Bagley et al. does not explicitly teach at least one Internet domain name

comprising a plurality of successive labels separated by dots;

Khello et al. teaches at least one Internet domain name comprising a plurality of

successive labels separated by dots (see paragraph [0058]);

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Bagley et al. by the teachings in Khello et

al., because Khello et al. provides Bagley et al. the benefit of an efficient way of

resolving telephone numbers and other entity/device identifiers into Internet addresses

as well as accommodating portability of those telephone numbers and other

entity/device identifiers without having to substantially modify or rework the domain

naming system infrastructure (see Abstrast). In addition to this, as stated above, Bagley

et al. states that "all other charactrers not included in the translation table, such as

hyphens or underlines, are ignored", and to remove those character. As periods are not

the in the translation table listed in 8:37-55, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to have removed periods

from a string.

Response to Arguments

5.   Applicant's arguments filed 5 August 2009 have been fully considered but they

are not persuasive.

Applicant argues in regards to <u>Bagley et al</u>. that "The string in question, however,

is not an internet domain name. In fact, the section states that a section corresponding

to a domain name is removed from the string. Furthermore, the resulting string of

characters "1800JKL1234" is not an internet domain name, since internet domain

names are made up of successive labels separated by dots." In response to this

argument, it is noted that in <u>Bagley et al</u>., the string upon which string manipulation is

done is originally an internet domain name. While <u>Bagley et al</u>. may remove "a section

corresponding to a domain name" (.ipn), that step is simply a part of the string

transformation that <u>Bagley et al</u>. undertakes. The Examiner sees no prohibition against

this step in the claims. The claims are directed towards "receiving data to be supplied to

database operations in a domain name server, the data including at least one Internet

domain name." <u>Bagley et al</u>. contains this step (see 7:48-55 and 8:20-36), as recited

above. While <u>Bagley et al</u>. may then remove the .ipn portion of the string, the fact

remains that the .ipn identifier is part of the string when it is "received for database

operations."

Applicant then argues that "the dots of a domain name, as explained in the present application, are not arbitrary characters (as in Bagley) but have semantic significance *i.e.* meaning." In response to this argument, it is noted that the claims are directed towards string transformation in which delimiters separating labels are removed. While <u>Bagley et al</u>. does not explicitly teach removing dots, <u>Bagley et al</u>. teaches removing other delimiters. <u>Khello et al</u>. is relied upon to show a system wherein dots as delimiters in an address are removed.

Applicant argues that "the entire issue of labels is not in the least hinted at in Bagley. In fact, the description and claims of Bagley do not even contain the term 'label.' Quite to the contrary, Bagley discloses something that approaches being the opposite of combining labels at 9:9-21, where strings are 'segmented' by adding dots. Subsequently, the 'segmented' string is converted to a domain name by adding a domain name. Taken together ... what Bagley discusses at Columns 8-9 is converting a domain name to a string, modifying the string according to the translation table at Column 8, segmenting the resulting string by adding dots, and then converting it back to a domain name." In response to this argument, it is noted that neither the claims nor the instant specification provide an explicit definition of the term 'label.' The most the claims state is that the labels must be separated by dots. As such, the examiner has interpreted 'labels' to be individual components of a 'domain name.' It is noted that <u>Bagley et al</u>. teaches labels as components of a domain name that are separated by

delimiters other than dots. <u>Khello et al.</u> is relied upon to teach labels separated dots. Therefore, it is clear that <u>Bagley et al.</u> in view of <u>Khello et al.</u> does teach "labels" as provided in the claims.

Applicant continues "thus, the approach of Bagley is radically different from the approach recited in the claims and discussed in the present application. For example, for the combination of labels according to certain embodiments of the present invention, please see Figures 2 and 3 of the present application. Thus, Bagley not only does not teach the claimed invention, Bagley teaches away from the claimed invention." In response to this argument, it is noted that neither Figure 2 nor Figure 3 are claimed in whole or in part in the independent claims. The independent claims do not claim that labels must be single-byte numerals. Nor does the presently claimed invention go into detail regarding how the combination is achieved, as in increasing a first "count" byte to indicate the number of bytes in the combined part of the domain name a whole.

Applicant, in regards to <u>Khello et al.</u>, argues that "it is respectfully submitted, however, that even if all these statements are taken as true and admitted (which is not what Applicants are doing), the proposed 'combination' would not in any way alter the fundamental operation of Bagley. Additionally, the "combination" would appear contrary to common sense. If Bagley is just going to remove the periods, why would one of ordinary skill in the art look to Khello for instruction to add them in the first place? Such a motivation does not seem to make sense. Thus, it is respectfully submitted that one of

ordinary skill in the art would not be motivated to alter the fundamental operation of

Bagley (which does not combine labels and doesn't even recognize the concept of

labels) to arrive at the claimed invention."

In response to this argument, it is first noted that the current invention does not

define the "concept of labels", and that Bagley et al. does teach labels as stated in the

preceding arguments and office action. Secondly, Examiner has not stated that one

should look to Khello et al. to add the periods, then to Bagley et al. to remove them.

Periods are known delimiters in the art, and that the claimed limitations are directed

towards removing delimiters from a string. It is noted that Bagley et al. teaches to

remove delimiters during a string transformation operation. While Bagley et al. does not

provide for removing periods, Khello et al. does teach the operation of removing periods

from a string before submitting it to database operations.

Applicant then argues that Khello et al. does not teach the remaining subject

mater in the independent claims. In response to this argument, it is noted that Khello et

al. is not relied upon to teach the remaining subject matter.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES D. ADAMS whose telephone number is (571)272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. A./
Examiner, Art Unit 2164

/Charles Rones/
Supervisory Patent Examiner, Art Unit 2164